

WHAT IS CLAIMED IS:

1. A discharging apparatus having a discharge head in which a plurality of discharge nozzles are arranged to discharge a liquid supplied from supply ports through discharge ports, comprising removing means for removing a medium in said discharge nozzles by applying a pressure difference between said supply ports and discharge ports of said discharge nozzles,
said removing means further comprising a cap member which operates to cover a predetermined one of said supply ports or discharge ports, when removing the medium in said discharge nozzles, so as to come into tight contact with said discharge head.
2. The apparatus according to claim 1, wherein said removing means generates a negative pressure in said discharge ports, with said discharge ports being covered by said cap member, and removes the medium in said discharge nozzles by suction through said cap member.
3. The apparatus according to claim 1, wherein said removing means generates a positive pressure in said supply ports, with said supply ports being covered by said cap member, and removes by pushing out the medium in said discharge nozzles from said discharge ports.
4. The apparatus according to claim 1, wherein when removing the medium in said discharge nozzles, said cap member operates to come into tight contact with said

discharge head so as to cover only an arbitrary one of said supply ports or discharge ports without coming into contact with any adjacent one of said supply ports or discharge ports.

5 5. The apparatus according to claim 1, wherein said removing means comprises

cap members equal in number to a number of said discharge nozzles, and

10 a connecting member to be connected to either one of communication channels connected to said cap members,

wherein when removing the medium in said discharge nozzles, said cap members operate to come into contact with said discharge head so as to cover said discharge ports without coming into contact with adjacent ones of said discharge ports, and said connecting member operates to be connected to either one of said communication channels, so that the medium in said nozzles is removed through a cap member that is connected to that one of said communication channels
15 which is connected to said connecting member.
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6. The apparatus according to claim 1, wherein said discharge head comprises an electrothermal transducer which generates heat energy for liquid discharge.

7. The apparatus according to claim 6, wherein said
25 discharge head discharges the liquid from said discharge ports by utilizing film boiling caused by the heat energy applied by said electrothermal transducer.

8. The apparatus according to claim 1, wherein said plurality of discharge nozzles are formed such that some of said plurality of discharge nozzles discharge liquids having different liquid compositions, and said removing means accumulates the liquids removed from said discharge nozzles, such that a liquid having the same liquid composition is accumulated together.

9. A removing method of removing a medium from discharge nozzles in a discharging apparatus by using removing means according to claim 1.

10. A method in a discharging apparatus of removing a medium from some of discharge nozzles formed in a discharge nozzle in a discharging apparatus by using removing means according to claim 1.

11. In a discharging apparatus having a discharge head in which a plurality of discharge nozzles are arranged to discharge a liquid supplied from supply ports through discharge ports, a removing method of applying a pressure difference between the supply ports and discharge ports of the discharge nozzles, thereby removing a medium in the discharge nozzles, wherein a cap member which covers a predetermined one of the supply ports or discharge ports is brought into contact with the discharge head, and the medium in the discharge nozzles is removed through the cap member.